

REMARKS

This Amendment is fully responsive to the final Office Action dated April 1, 2008, issued in connection with the above-identified patent application. A request for continued examination (RCE) accompanies this Amendment. Claims 1-26 were previously pending in the present application. By this Amendment, claim 1 has been amended; and claims 2-5, 17, 18 and 20-26 have been canceled without prejudice or disclaimer to the subject matter therein. No new matter has been introduced by the amendments made to claim 1. Favorable reconsideration is respectfully requested.

At the outset, the Applicants respectfully remind the Examiner that an interview was scheduled with the Examiner and his supervisor prior to the filing of this Amendment. However, due to an emergency, the Examiner's supervisor was unable to attend the interview so the date of the interview was postponed. The Applicants were assured by the Examiner that an interview would be granted to discuss the arguments and amendments presented in this paper well as to discuss related application no. 10/712,341 prior to a subsequent action being issued in either application.

In the Office Action, claims 1-4 and 6-26 have been rejected under 35 U.S.C. §102(e) as being anticipated by Higashida et al. (U.S. Patent No. 6,862,401, hereafter "Higashida"). Additionally, claim 5 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Higashida. The Applicants respectfully traverse the rejections noted above for the reasons noted below. As noted above, the Applicants have canceled claims 2-5, 17, 18 and 20-26 rendering the above rejections to those claims moot.

Additionally, the Applicants have amended independent claim 1 to help further distinguish the present invention from the cited prior art. The Applicants maintain that the cited prior art fails to disclose or suggest each and every element as recited in at least independent claim 19, as previously presented.

With regard to claim 1, the claim (as amended) recites the following features:

"[a] recording apparatus for recording to a recording medium AV data containing at least one of audio data and video data, and recovery data for restoring management information for the

AV data when AV data recording did not end normally, said recording apparatus comprising:
a first generator operable to generate recovery data for each constant or variable period;
a second generator operable to generate AV data; and
a recorder operable to interleave the recovery data with the AV data, and to record the interleaved recovery data with the AV data on the recording medium during AV data recording,
wherein the recovery data contains, in relation to the AV data, 1) file management information, 2) recording address information, 3) playback time information, and 4) a start address for an I-picture.” (Emphasis added).

The features noted above in claim 1 are fully supported by the Applicants’ disclosure. Additionally, the above features are not believed to be disclosed or suggested by the cited prior art.

In the Office Action, the Examiner relies on Higashida in view of Hatanaka for disclosing or suggesting the features recited in independent claim 1. Specifically, the Examiner relies on Higashida for disclosing or suggesting all the features recited in the claim except for the claimed recorder that records data interleaved with the AV data during AV data recording. The Examiner relies exclusively on Hatanaka for disclosing this feature.

However, the Applicants assert that the cited prior art fails to disclose or suggested the features noted above in claim 1; particularly the features of claim 1 as amended. Specifically, the Applicants assert that the cited prior art fails to disclose or suggest at the following features of claim 1:

- 1) recording recovery data with AV data, wherein the recovery data is interleaved with AV data on the recording medium during AV data recording;
- 2) recorded interleaved recovery data that is used for restoring management information for the AV data when AV data recording did not end normally; and
- 3) recorded interleaved recovery data that contains, in relation to the AV data, 1) file management information, 2) recording address information, 3) playback time information, and 4) a start address for an I-picture.

In the Office Action, the Examiner relies exclusively on Hatanaka at ¶ [0029] for

disclosing or suggesting the recording of interleaved recovery data. However, Hatanaka at ¶ [0029] discloses a packet composition of the transmitted digital broadcasting signal illustrated in Figs 2(A)-2(C). As described in ¶ [0029] of Hatanaka, the digital broadcasting signal has a packet composition of a header 50; data 51 representing video, audio or other data compressed using MPEG 2; and a parity bit 52. Accordingly, none of the data in the digital broadcasting signal of Hatanaka corresponds to the stored recovery data. At best, Hatanaka discloses the use of interleaved parity bits, which are binary digits (i.e., 1 or 0) that are added to ensure that the number of bits with a value of one in a given set of bits is always even or odd. However, parity bits are used as a common form of error detection, not for direct data recovery.

As recited in claim 1, the recovery data is “for restoring management information for the AV data when AV data recording did not end normally.” Conversely, in Hatanaka, the digital broadcasting signal does not include data for restoring management information for the AV data when AV data recording did not end normally.

Additionally, as recited in claim 1 (as amended), “the interleaved recovery data includes 1) file management information, 2) recording address information, 3) playback time information, and 4) a start address for an I-picture.” None of the data included in the digital broadcasting signal in Hatanaka discloses the above features.

Therefore, no combination of Higashida and Hatanaka would result in, or otherwise render obvious, independent claim 1; particularly claim 1 as amended. Likewise, no combination of Higashida and Hatanaka would result in, or otherwise render obvious, claims 6-16 at least by virtue of their dependency from independent claim 1.

With regard to claim 19, the Applicants maintain that the cited prior art fails to disclose or suggest the features recited in claim 19, as previously presented. Specifically, independent claim 19 recites the following features:

“[a] recording method for recording AV data containing at least one of audio data and video data, and recovery data for restoring management information for the AV data when AV data recording did not end normally, comprising recording the recovery data interleaved with the AV data during AV data recording.” (Emphasis added).

The features noted above in claim 19 are fully supported by the Applicants' disclosure. Additionally, the features noted above in independent claim 19 are similarly recited in independent claim 1. Thus, independent claim 19 is also believed to be clearly distinguishable over the cited prior art for some of the same reasons noted above for independent claim 1.

As noted above, in the Office Action, the Examiner relies exclusively on ¶ [0029] of Hatanaka for disclosing or suggesting recording the recovery data interleaved with the AV data during AV data recording. As described in ¶ [0029] of Hatanaka, a digital broadcasting signal has a packet composition of a header 50; data 51 representing video, audio or other data compressed using MPEG 2; and a parity bit 52. Accordingly, none of the data in the digital broadcasting signal of Hatanaka corresponds to interleaved recovery data.

Therefore, no combination of Higashida and Hatanaka would result in, or otherwise render obvious, independent claim 19.

The present invention, as recited in claims 1 and 19, addresses the problem faced during conventional digital recording when a loss of power occurs. Specifically, a loss of power during the recording of AV data can result in inconsistencies between the AV data and the management information. More specifically, recording of management information is stored at certain times (e.g., when a disc is ejected) during the recording process. However, if power is unexpectedly interrupted to a digital recording apparatus (e.g., due to a power failure) before recording of the AV data is completed, the recording operation could end without the management information for the AV data ever being recorded. Thus, the management information is lost, creating an inconsistency between the recorded AV data and the corresponding management information. The present invention, as recited in claims 1 and 19, addresses this problem, wherein the cited prior art does not.

As such, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the Office Action dated April 1, 2008, and pass this application to issue.

The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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